

ABSTRACT OF THE DISCLOSURE

The invention is a method for depositing nano-particles on micro-structured objects that have features with sizes measured in microns or smaller by forming a nano-particle dispersion having a polymer with an acrylate, a metal component, a carrier, and nano-particles with a mean average
5 diameter of less than about 10 nm, then coating a micro-structured object with dimensions of between 50 nanometers and 200 microns with the nano-particle dispersion and penetrating nano-particles from the nano-particle dispersion into the features forming a nano-composite.